BUZZERS, RELAYS & TIMERS

BUZZERS, RELAYS & TIMERS LOCATION

Component	Location
Coolant Fan Control Relay (13)	On thirteenfold auxiliary relay panel.
Coolant Preheating Relay (Low Heat Output)	To left of brake fluid reservoir.
Daytime Running Lights Changeover Relay (8)	On thirteenfold auxiliary relay panel.
Dual Horn Relay	On relay panel.
Foglight Relay (1)	On thirteenfold auxiliary relay panel.
Fuel Pump Relay (4)	On relay panel.
Glow Plug Relay (10)	On thirteenfold auxiliary relay panel.
Load Reduction Relay (2)	On relay panel.
Motronic Engine Control Module Power Supply Relay	To left of brake fluid reservoir.
Park/Neutral Position Relay (11)	On thirteenfold auxiliary relay panel.
Power Supply (Terminal 30, B+) Relay (12)	On thirteen fold auxiliary relay panel.
Radio Speaker Changeover Relay (6)	On thirteenfold auxiliary relay panel.
Remote Rear Lid Unlock Motor Relay (2)	On thirteenfold auxiliary relay panel.
Secondary Air Injection Pump Relay (1.8L)	Inside housing, to left of brake fluid reservoir.
Secondary Air Injection Pump Relay (2.0L)	Inside housing, to left of brake fluid reservoir.
Starter Lock Relay (Clutch Pedal Switch) (3)	On thirteenfold auxiliary relay panel.
Wiper/Washer Intermittent Relay (2) (V & VI)	On relay panel.

CIRCUIT PROTECTION DEVICES

CIRCUIT PROTECTION DEVICES LOCATION

Component	Location
Fuse Bracket	On battery cover.
Fuse Panel	Behind left side of dash.
Relay Panel	Behind left side of dash.
Thirteenfold Auxiliary Relay Panel	Behind left side of dash, integral to relay panel.

CONTROL UNITS

CONTROL UNITS LOCATION

Component	Location
ABS Control Module	Left rear of engine compartment.
ABS Hydraulic Control Unit	On left side of engine compartment, beside vacuum brake booster.
Airbag Control Module	On center floor tunnel, below heater core housing.
Comfort System Central Control Module	Below left side of dash, left of steering column.
Convertible Top Control Module	On right side of luggage compartment.
Coolant Fan Control Control Module	On lower left front of engine compartment, to left of radiator.
Diesel Direct Fuel Injection Engine Control Module	Below left side of dash panel cover.
Door Control Module (Driver Side)	In driver's door, integral to window motor.
Door Control Module (Passenger Side)	In passenger's door, integral to window motor.
Motronic Engine Control Module (1.8L) (11)	Below left side of dash panel cover. See **Fig. 1** .
Motronic Engine Control Module (2.0L AEG)	Below left side of dash cover.
Motronic Engine Control Module (2.0L AVH & AZG) (11)	Below left side of dash cover. See **Fig. 3** .
Motronic Engine Control Module (2.0L BDC & BGD) (12)	Below left side of dash cover. See **Fig. 4** .
Motronic Engine Control Module (2.0L BEV) (9)	Below left side of dash cover. See **Fig. 5** .
Rear Spoiler Control Module	On right side of rear lid.
Throttle Valve Control Module (1.8L) (26)	On throttle body, on left side of engine. See **Fig. 1** .
Throttle Valve Control Module (2.0L AEG) (4)	On throttle body. See **Fig. 2** .
Throttle Valve Control Module (2.0L AVH & AZG) (4)	On throttle body. See **Fig. 3** .
Throttle Valve Control Module (2.0L BDC & BGD) (9)	On throttle body. See **Fig. 4** .
Throttle Valve Control Module (2.0L BEV) (5)	On throttle body. See **Fig. 5** .
Transmission Control Module	Below right side of dash panel cover.

MOTORS

MOTORS LOCATION

Component	Location
ABS Hydraulic Pump	Integral to ABS hydraulic control unit.
Deck Lid Central Locking System Motor	In middle of rear lid, attached to lock cylinder carrier.
Door Lock Central Locking Unit	In right and left door.
Fresh Air Blower	Behind right side of dash, forward of glove box.
Fresh/Recirculating Air Door Servo Motor	Behind right side of dash, to right of fresh air blower housing.
Fuel Pump	Integral to fuel sender, below right side of rear seat.
Fuel Tank Lid Unlock Motor	Above right rear wheelwell, in luggage compartment.
Hydraulic Pump (Convertible)	On left side of luggage compartment.
Leak Detection Pump	In right rear wheelwell.
Power Sunroof Motor	Front center of roof panel.
Rear Spoiler Motor	In right side of rear deck lid.
Secondary Air Injection Pump Motor (1.8L) (23)	On left rear of engine. See **Fig. 1** .
Secondary Air Injection Pump Motor (2.0L AEG) (9)	On left rear of engine. See **Fig. 2** .
Secondary Air Injection Pump Motor (2.0L AVH & AZG) (26)	On left rear of engine. See **Fig. 3** .
Secondary Air Injection Pump Motor (2.0L BDC & BGD) (22)	On left rear of engine. See **Fig. 4** .
Secondary Air Injection Pump Motor (2.0L BEV) (19)	On left rear of engine. See **Fig. 5** .
Throttle Position Actuator (2.0L)	Integral to throttle valve control module.

SENDING UNITS & SENSORS

SENDING UNITS & SENSORS LOCATION

Component	Location
ABS Wheel Speed Sensor (Left Front)	On left front wheel.
ABS Wheel Speed Sensor (Right Rear)	At right rear stub axle.
Accelerator Pedal Position Sensor No. 2	Above accelerator pedal.
Angle Sensor No. 2	On throttle body.
Camshaft Position Sensor (1.8L) (5)	On front of cylinder head, behind timing belt cover. See **Fig. 1** .
Camshaft Position Sensor (2.0L AEG) (17)	On cylinder head, behind camshaft sprocket. See **Fig. 2** .

Camshaft Position Sensor (2.0L AVH & AZG) (2)	Below upper toothed belt guard. See **Fig. 3** .
Camshaft Position Sensor (2.0L BDC & BGD) (4)	Below upper toothed belt guard. See **Fig. 4** .
Camshaft Position Sensor (2.0L BEV) (3)	Below upper toothed belt guard. See **Fig. 5** .
Charge Air Pressure Sensor (1.8L) (25)	On intercooler, inside right front fender. See **Fig. 1** .
Charge Air Pressure Sensor (1.9L)	On intercooler, inside right front fender.
Engine Coolant Level Sensor (1.8L)	In engine coolant reservoir.
Engine Coolant Level Sensor (1.9L)	At rear of cylinder head.
Engine Coolant Level Sensor (2.0L)	In engine coolant reservoir.
Engine Coolant Temperature Sensor (1.8L) (13)	On coolant flange, on rear of cylinder head. See **Fig. 1** .
Engine Coolant Temperature Sensor (1.9L)	On coolant flange, on rear of cylinder head.
Engine Coolant Temperature Sensor (2.0L AEG) (8)	On coolant flange, on rear of cylinder head. See **Fig. 2** .
Engine Coolant Temperature Sensor (2.0L AVH & AZG) (17)	On coolant flange, on rear of cylinder head. See **Fig. 3** .
Engine Coolant Temperature Sensor (2.0L BDC & BGD) (15)	On coolant flange, on rear of cylinder head. See **Fig. 4** .
Engine Coolant Temperature Sensor (2.0L BEV) (12)	On coolant flange, on rear of cylinder head. See **Fig. 5** .
Engine Speed Sensor (1.8L) (19)	On lower left rear of engine block, near transaxle flange. See **Fig. 1** .
Engine Speed Sensor (1.9L)	On lower left rear of engine block, near transaxle flange.
Engine Speed Sensor (2.0L AEG) (11)	On lower left rear of engine block, near transaxle flange. See **Fig. 2** .
Engine Speed Sensor (2.0L AVH & AZG) (21)	On lower left rear of engine block, near transaxle flange. See **Fig. 3** .
Engine Speed Sensor (2.0L BDC & BGD) (21)	On lower left rear of engine block, near transaxle flange. See **Fig. 4** .
Engine Speed Sensor (2.0L BEV) (18)	On lower left rear of engine block, near transaxle flange. See **Fig. 5** .
Fuel Gauge Sender (Fuel Level Sensor)	In fuel tank, below right side of rear seat.
Fuel Temperature Sensor	On diesel direct fuel injection pump.
Heated Oxygen Sensor No. 2 (1.8L)	Below vehicle, behind three-way catalytic converter.

Heated Oxygen Sensor (2.0L AVH & AZG) (5)	In exhaust manifold. See **Fig. 3** .
Heated Oxygen Sensor (2.0L BDC, BEV & BGD)	In exhaust manifold.
Intake Air Temperature Sensor (1.8L) (27)	On intake manifold, near throttle body. See **Fig. 1** .
Intake Air Temperature Sensor (1.9L)	In intake air duct.
Intake Air Temperature Sensor (2.0L AEG) (6)	In intake air duct. See **Fig. 2** .
Intake Air Temperature Sensor (2.0L AVH & AZG) (12)	In intake air duct. See **Fig. 3** .
Intake Air Temperature Sensor (2.0L BDC & BGD) (17)	In intake air duct. See **Fig. 4** .
Intake Air Temperature Sensor (2.0L BEV) (14)	In intake air duct. See **Fig. 5** .
Knock Sensor No. 1 (1.8L) (24)	On left side of engine block. See **Fig. 1** .
Knock Sensor No. 1 (2.0L AEG) (15)	On left front of engine block. See **Fig. 2** .
Knock Sensor No. 1 (2.0L AVH & AZG) (27)	On left front of engine block. See **Fig. 3** .
Knock Sensor No. 1 (2.0L BDC & BGD) (25)	On left front of engine block. See **Fig. 4** .
Knock Sensor No. 1 (2.0L BEV) (22)	On left front of engine block. See **Fig. 5** .
Knock Sensor No. 2 (1.8L) (22)	On left side of engine block. See **Fig. 1** .
Knock Sensor No. 2 (2.0L AEG) (14)	On left rear of engine block. See **Fig. 2** .
Knock Sensor No. 2 (2.0L AVH & AZG) (24)	On left rear of engine block. See **Fig. 3** .
Knock Sensor No. 2 (2.0L BDC & BGD) (24)	On left rear of engine block. See **Fig. 4** .
Knock Sensor No. 2 (2.0L BEV) (21)	On left rear of engine block. See **Fig. 5** .
Manifold Absolute Pressure Sensor	In intake air duct.
Mass Air Flow Sensor (1.8L) (15)	On right side of air cleaner housing, in air intake duct. See **Fig. 1** .
Mass Air Flow Sensor (1.9L)	On right side of air cleaner housing, in intake air duct.
Mass Air Flow Sensor (2.0L AEG) (6)	On right side of air cleaner housing, in intake air duct. See **Fig. 2** .
Mass Air Flow Sensor (2.0L AVH & AZG) (12)	On right side of air cleaner housing, in intake air duct. See **Fig. 3** .
Mass Air Flow Sensor (2.0L BDC & BGD) (17)	On right side of air cleaner housing, in

	intake air duct. See **Fig. 4** .
Mass Air Flow Sensor (2.0L BEV) (14)	On right side of air cleaner housing, in intake air duct. See **Fig. 5** .
Modulating Piston Displacement Sensor (1.9L)	On diesel direct fuel injection pump.
Needle Lift Sensor	Integral to fuel injector No. 3.
Outside Temperature Sensor	Lower front of vehicle.
Oxygen Sensor (Behind Three Way Catalytic Converter) (2.0L AVH & AZG) (7)	Behind Three Way Catalytic Converter. See **Fig. 3** .
Oxygen Sensor (Behind Three Way Catalytic Converter) (2.0L BDC, BEV &.BGD)	Behind Three Way Catalytic Converter.
Rain Sensor	Integral to rearview mirror mount, on windshield.
Side Air Bag Crash Sensor (Driver's Side)	Under driver's seat.
Side Air Bag Crash Sensor (Passenger's Side)	Under passenger's seat.
Speedometer Vehicle Speed Sensor	On top of transaxle differential housing.
Throttle Position Sensor (1.8L)	Above accelerator pedal.
Throttle Position Sensor (1.9L)	Above accelerator pedal.
Throttle Position Sensor (2.0L)	Integral to throttle valve control module.
Transmission Vehicle Speed Sensor	On top of transaxle housing, left of transaxle cooler.

SOLENOIDS & SOLENOID VALVES

SOLENOIDS & SOLENOID VALVES LOCATION

Component	Location
ABS Inlet Valve (Left Front)	On ABS hydraulic unit.
ABS Outlet Valve (Right Rear)	On ABS hydraulic control unit.
Cold Start Injector	On bottom of diesel direct fuel injection pump.
EGR Vacuum Regulator Solenoid Valve	On left side of firewall.
Evaporative Emission Canister Purge Regulator Valve (1.8L) (28)	Right side of engine compartment. See **Fig. 1** .
Evaporative Emission Canister Purge Regulator Valve (2.0L AEG) (1)	On right side of engine compartment, next to engine coolant reservoir. See **Fig. 2** .
Evaporative Emission Canister Purge Regulator Valve (2.0L AVH &AZG) (1)	On right side of engine compartment, next to engine coolant reservoir. See **Fig. 3** .
Evaporative Emission Canister Purge Regulator Valve (2.0L BDC & BGD) (1)	On right side of engine compartment, next to engine coolant reservoir. See **Fig. 4** .
Evaporative Emission Canister Purge	On right side of engine compartment, next

Regulator Valve (2.0L BEV) (1)	to engine coolant reservoir. See **Fig. 5** .
Fuel Cut-Off Valve	On top of diesel direct fuel injection pump.
Intake Manifold Changeover Valve (2.0L BDC & BGD) (5)	On intake manifold, at left side of engine. See **Fig. 4** .
Intake Manifold Flap Changeover Valve	On rear of intake manifold, on right side of engine.
Intake Manifold Tuning Valve (2.0L BDC & BGD) (26)	On intake manifold, at left side of engine. See **Fig. 4** .
Quantity Adjuster	On diesel direct fuel injection pump.
Recirculating Valve (Turbocharger) (7)	On top of cylinder head, beneath cover. **Fig. 1** .
Secondary Air Injection Solenoid Valve (1.8L) (6)	On right front of cylinder head, beneath cover. See **Fig. 1** .
Secondary Air Injection Solenoid Valve (2.0L AEG) (7)	On left side of firewall. See **Fig. 2** .
Shift Lock Solenoid	On center tunnel, in selector mechanism housing.
Wastegate By-Pass Regulator Valve (1.8L) (9)	On left rear corner of engine compartment, on intake duct. See **Fig. 1** .
Wastegate By-Pass Regulator Valve (1.9L)	On left side of firewall, left of EGR vacuum regulator solenoid valve.

SWITCHES

SWITCHES LOCATION

Component	Location
A/C Cut-Out Thermal Switch	Front of engine compartment.
A/C Pressure Switch	On A/C line, at right side of firewall.
Ambient Temperature Switch	On right side fresh air intake, above firewall, below water deflector.
Back-Up Light Switch (M/T)	On top of transaxle, on front of selector mechanism housing.
Brakelight Switch	Above brake pedal.
Brake Vacuum Vent Valve Switch	Above brake pedal.
Closed Throttle Position Switch (1.9L)	Above accelerator pedal.
Closed Throttle Position Switch (2.0L)	Above accelerator pedal.
Clutch Pedal Position Switch	Above clutch pedal, above clutch vacuum vent valve switch.
Clutch Vacuum Vent Valve Switch	Above clutch pedal, below clutch pedal position switch.

Contact Switch (Left/Right) (Convertible)	On respective side of convertible top frame.
Convertible Top Position Sliding Switch	On right side of convertible top frame, near hydraulic cylinder.
Coolant Fan Control (FC) Thermal Switch	On bottom left side of radiator.
Cruise Control Brake Vacuum Vent Valve Switch	Integral to brakelight switch.
Hood Alarm Switch	On hood latch mechanism.
Kickdown Switch	Integral to throttle position sensor.
Luggage Compartment Light Switch	In rear lid latch.
Multifunction Transmission Range Switch	On top rear of transaxle.
Oil Pressure Switch (1.8L)	On left side of engine, on oil filter flange.
Oil Pressure Switch (1.9L)	On left side of engine, right side of oil filter flange.
Oil Pressure Switch (2.0L)	Left side of engine, on left side of oil filter flange.
Parking Brake Warning Light Switch	At bottom of parking brake lever.
Seat Belt Micro Switch (Right Front)	In right front seat belt buckle.
Trunk Lock Alarm/Central Locking Switch	In rear lid, on lock cylinder assembly.

MISCELLANEOUS

MISCELLANEOUS LOCATION

Component	**Location**
Alarm Horn	In right side fresh air intake, above firewall, to rear of water deflector.
Amplifier	On left side of luggage compartment.
Data Link Connector	Under left side of dash, below steering column.
Fresh Air Blower Series Resistance (W/Fuse)	Below fresh air blower, below right side of dash.
Glow Plugs (4) (Engine)	Next to each diesel fuel injector.
Igniter (Passenger Side Airbag)	Right side of front passenger's seat.
Ignition Coils W/Final Output Stage) (2.0L BDC & BGD) (19)	On left side of engine, below AIR pump. See **Fig. 4** .
Ignition Coils W/Final Output Stage) (2.0L BEV) (16)	On left side of engine, below AIR pump. See **Fig. 5** .
Ignition Coils W/Power Output Stage) (2.0L AVH & AZG) (18)	On left side of engine, below AIR pump. See **Fig. 3** .

Ignition Coil (W/Power Output Stage) (1.8L) (8)	On top of cylinder head, over respective cylinder. See **Fig. 1** .
Ignition Coil W/Power Output Stage) (2.0L AEG) (12)	On left side of engine, below AIR pump. See **Fig. 2** .
Positive Crankcase Ventilation Heating Element (1.9L)	In PCV hose, at rear of intake manifold.
Positive Crankcase Ventilation Heating Element (2.0L AVH & AZG) (16)	In fresh air intake hose, near throttle body. See **Fig. 3** .
Positive Crankcase Ventilation Heating Element (2.0L BDC & BGD) (10)	In fresh air intake hose, near throttle body. See **Fig. 4** .
Positive Crankcase Ventilation Heating Element (2.0L BEV) (7)	In fresh air intake hose, near throttle body. See **Fig. 5** .
Voltage Regulator	On rear of generator.

CONNECTORS

CONNECTORS LOCATION

Component	Location
T3F (3 Pin)	On left side of engine, near dipstick.
T3H (3 Pin)	Near bottom left side of radiator.
T3 (3 Pin)	On battery cover.
T4 (Brown, 4 Pin)	At lower right rear of engine compartment, near subframe mount.
T5 (Black, 5 Pin)	At left "C" pillar, above wheelwell.
T5B (5 Pin)	Near steering column.
T5G (Black, 5 Pin)	On left side of rear deck lid.
T5H (Brown, 5 Pin)	On left side of rear deck lid.
T6A (6 Pin)	Behind left side of dash.
T6 (Black, 6 Pin)	At lower right rear of engine compartment, near subframe mount.
T6E (6 Pin)	Near steering column.
T6 (Red/Brown, 6 Pin)	Below left side of dash panel cover, on connector station.
T7 (7 Pin)	Near steering column.
T10A (Orange, 10 Pin)	Below left side of dash panel cover, on connector station.
T10B (2.0L) (Black, 10 Pin)	At left rear of engine compartment, near air cleaner housing.
T10C (Blue, 10 Pin)	Below left side of dash panel cover, on connector station.
T10D (Green, 10 Pin)	Below left side of dash panel cover, on connector station.
T10F (Black, 10 Pin)	On left side of engine.
T10G (Gray, 10 Pin)	Below left side of dash panel cover, on connector station.
T10H (Black, 10 Pin)	Below left side of dash panel cover, on connector station.

T10K (Black, 10 Pin)	Behind left kick panel.
T10L (Black, 10 Pin)	Behind right kick panel.
T10P (Blue, 10 Pin)	Behind left kick panel.
T10S (10 Pin)	Near steering column.
T10 (White, 10 Pin)	Below left side of dash panel cover, on connector station.
T12 (12 Pin)	Near steering column.
T14 (14 Pin)	Below center of dash panel cover.

GROUNDS

GROUNDS LOCATION

Component	Location
G1	Below battery.
G2	On top of transaxle.
G12	On left side of engine compartment, behind headlight.
G15	On cylinder head.
G42	Beside steering column.
G43	At lower right "A" pillar.
G44	At left kick panel.
G45	Behind left center of dash.
G50	On left side of luggage compartment.
G57	On left rear pillar, above wheelwell.
G607	Below left side of dash panel cover.
G608	Below center of dash panel cover.
G609	Below right side of dash panel cover.

COMPONENT LOCATION GRAPHICS

NOTE: Figures may show multiple component locations. Refer to appropriate table for proper figure references.

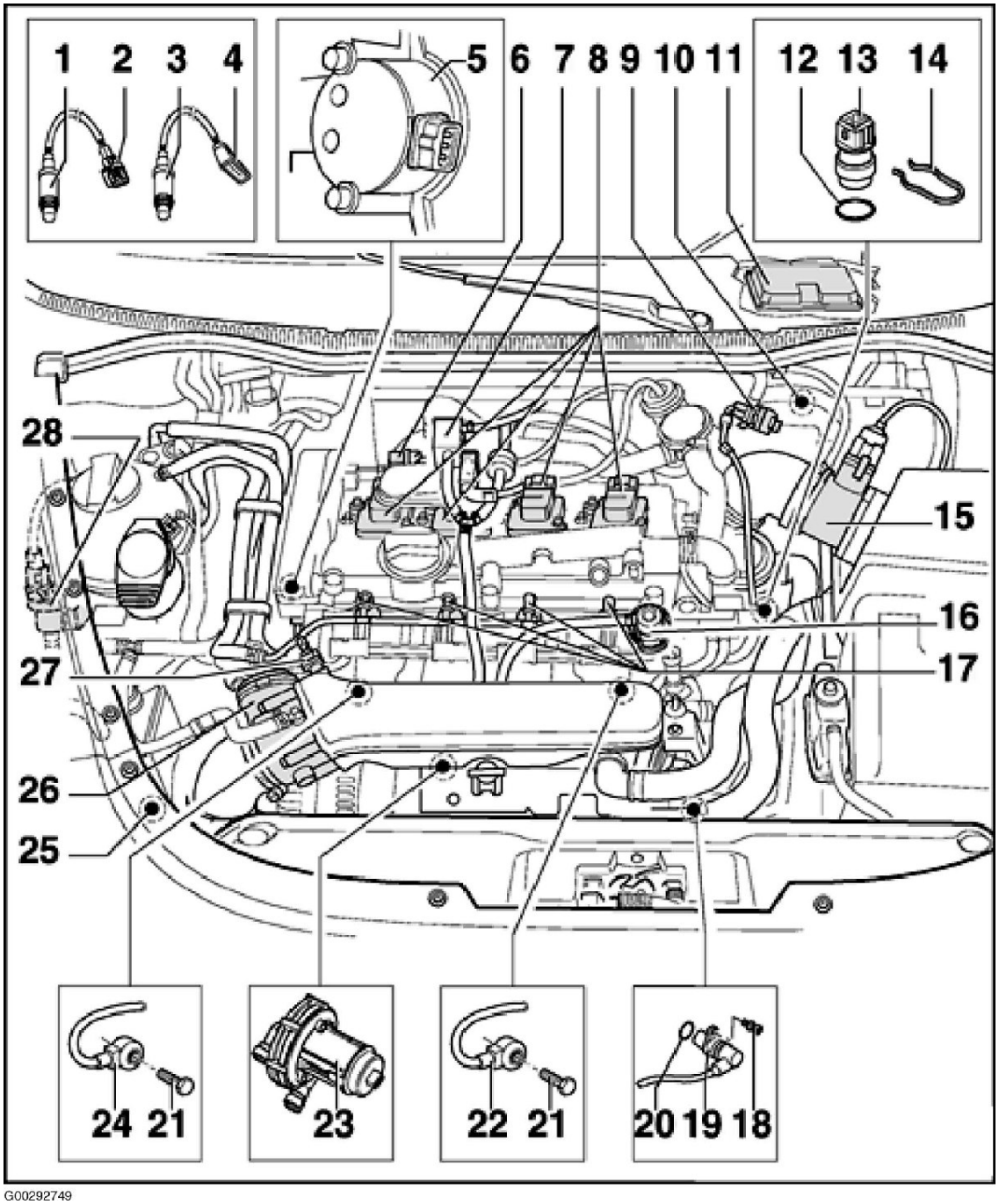

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Fig. 1: Engine Compartment (1.8L)
Courtesy of VOLKSWAGEN UNITED STATES, INC.

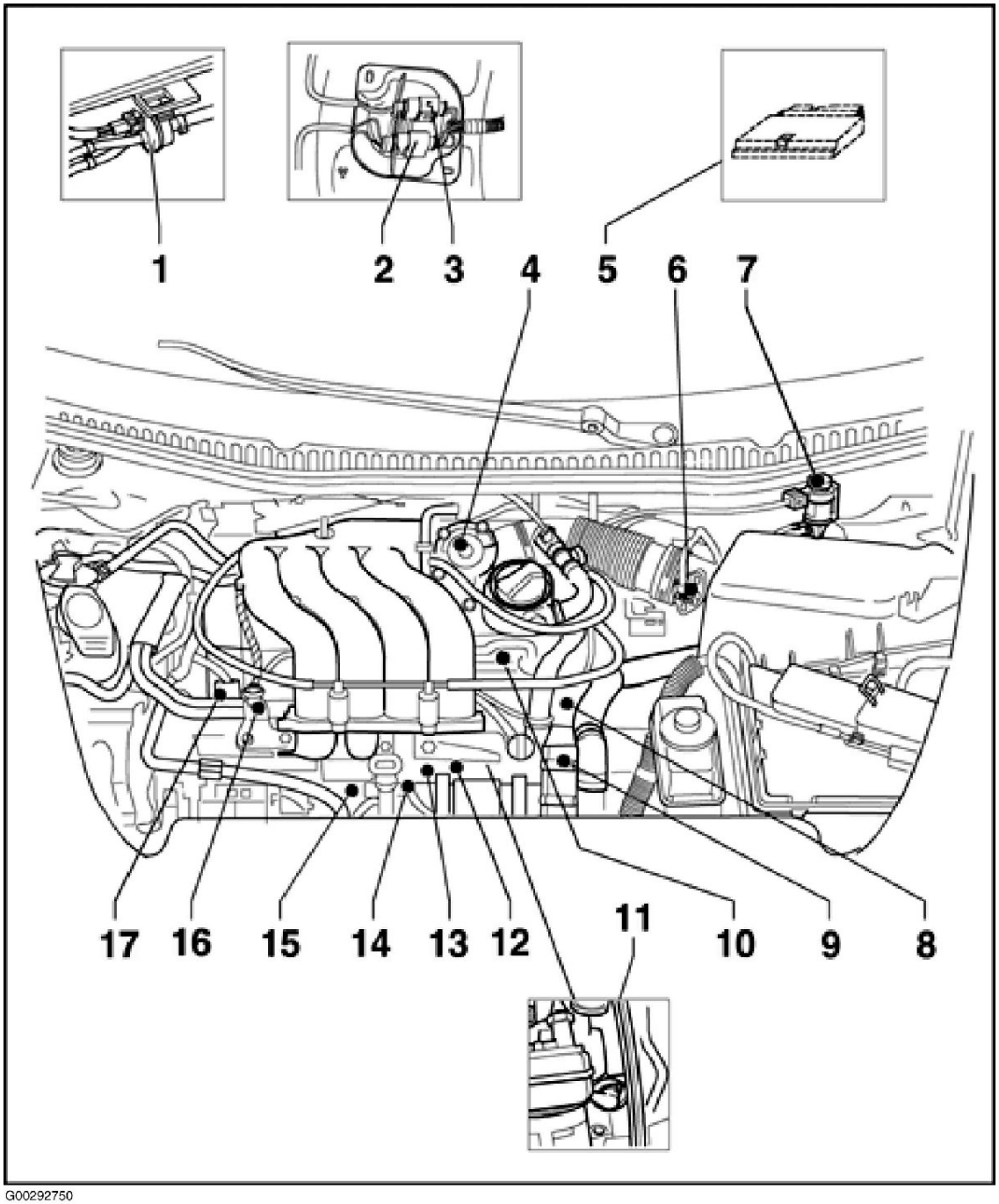

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Fig. 2: Engine Compartment (2.0L AEG)
Courtesy of VOLKSWAGEN UNITED STATES, INC.

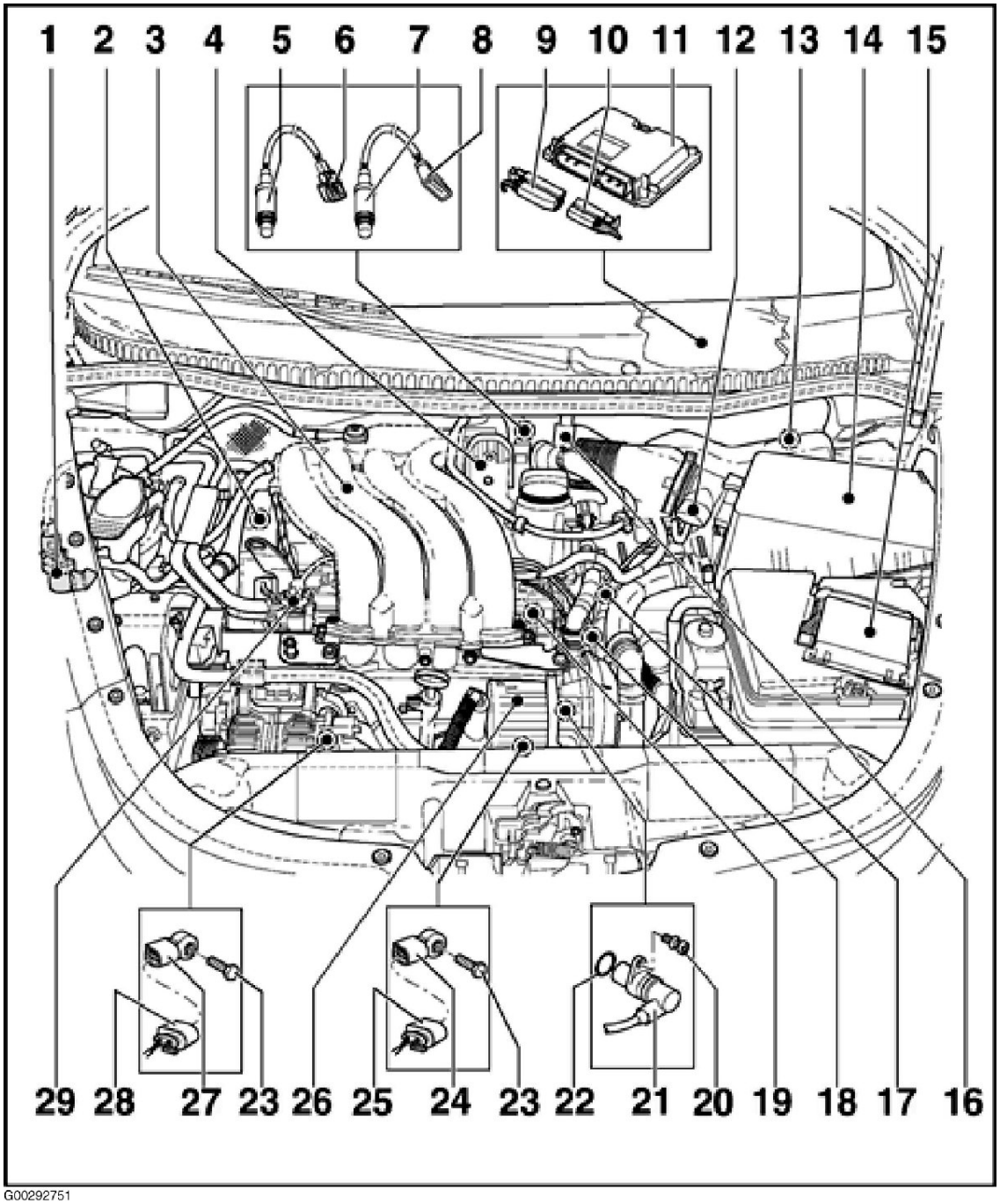

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Fig. 3: Engine Compartment (2.0L AVH & AZG)
Courtesy of VOLKSWAGEN UNITED STATES, INC.

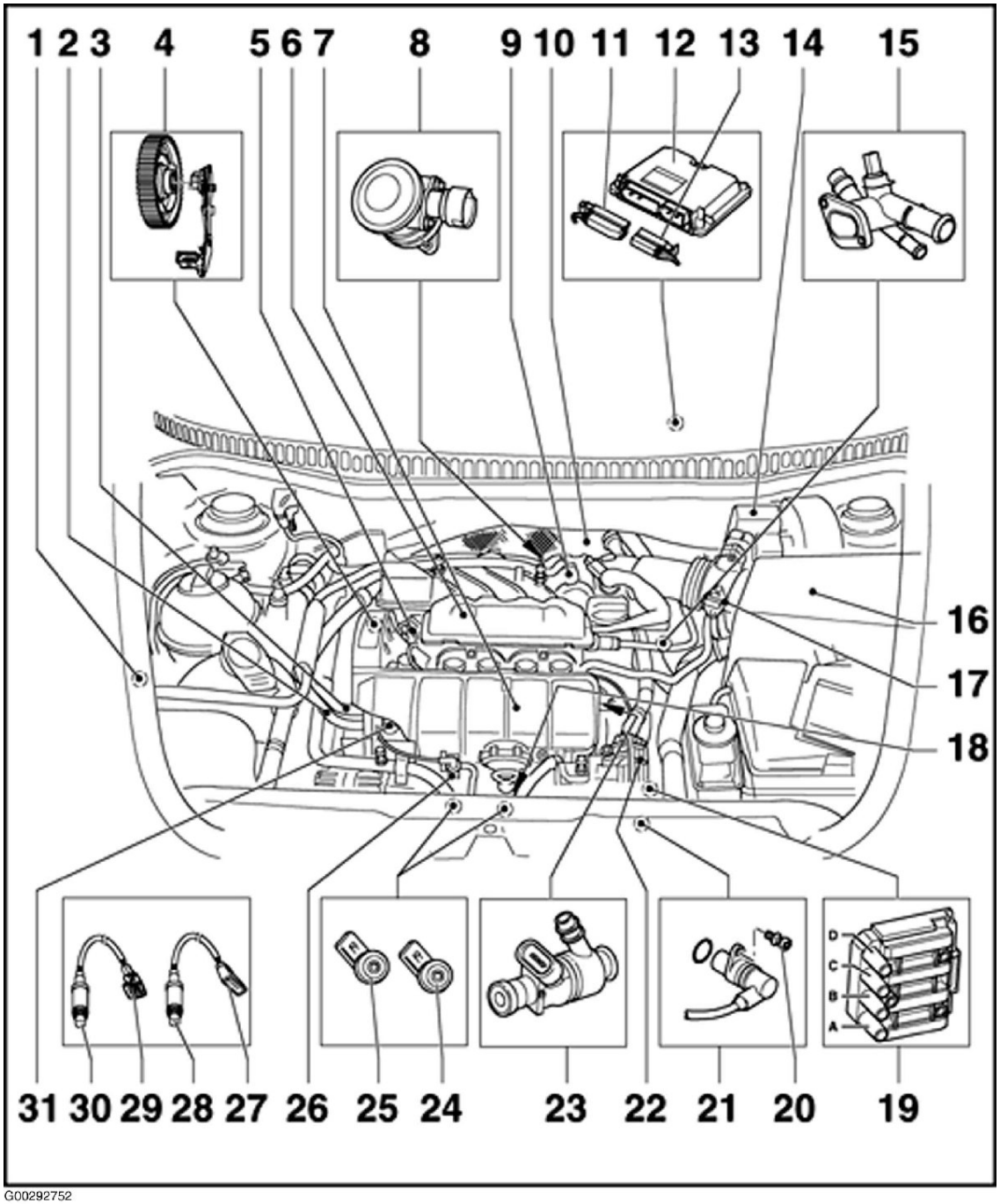

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Fig. 4: Engine Compartment (2.0L BDC & BGD)
Courtesy of VOLKSWAGEN UNITED STATES, INC.

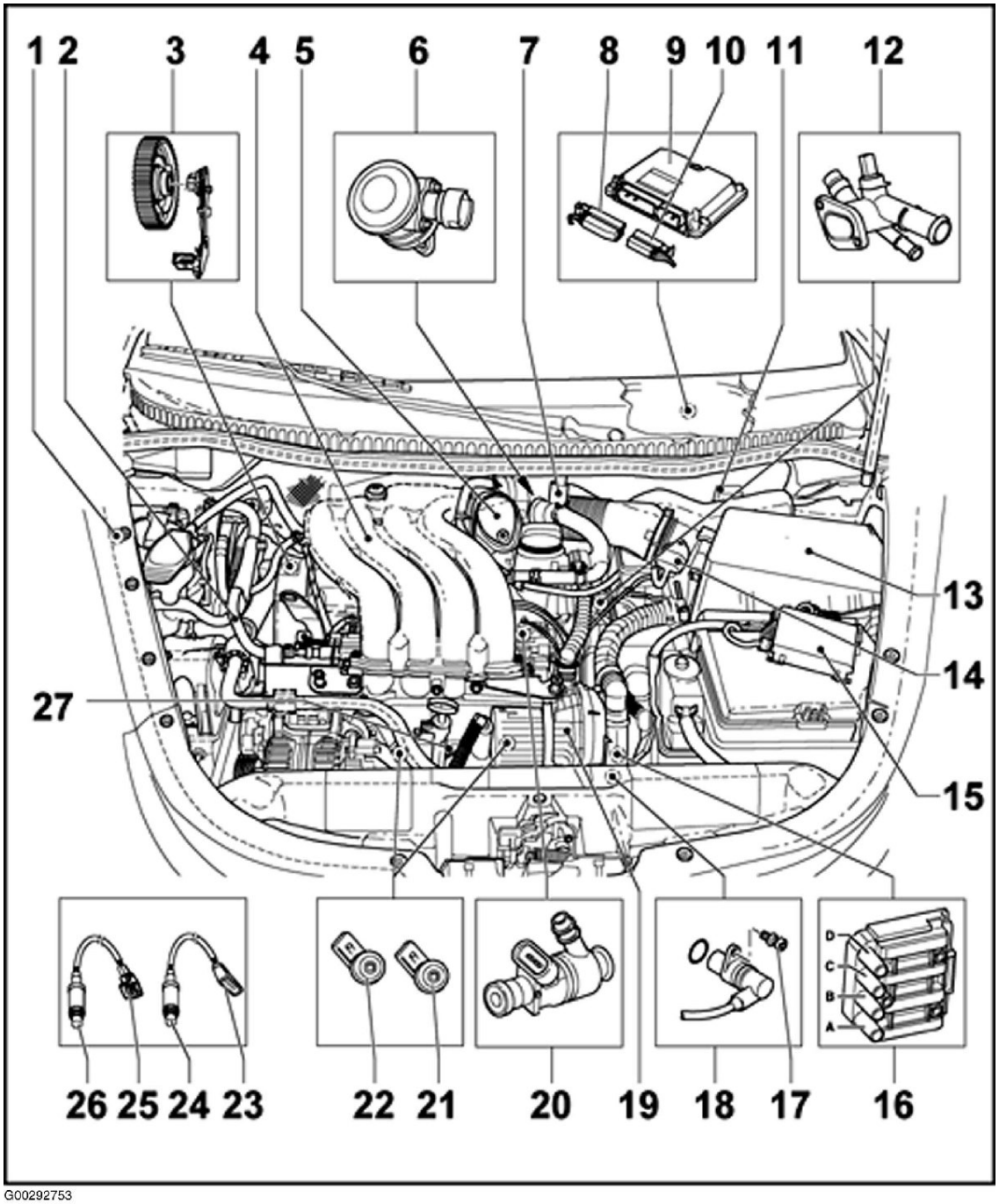

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Fig. 5: Engine Compartment (2.0L BEV)
Courtesy of VOLKSWAGEN UNITED STATES, INC.